

SSI  
Trigger

**ATTACHMENT A**  
**AGRIUM KNO FACILITY**  
**CONTINUOUS RELEASE-EMERGENCY RESPONSE NOTIFICATION SYSTEM REPORT**



**SECTION I: GENERAL INFORMATION**

**CR-ERNS Number:** 44607

**Date of Initial Release:**

**Date of Initial Call to NRC:** 10/23/90

**Type of Report:** Indicate below the type of report you are submitting.

<input type="checkbox"/> Initial Written Notification	<input type="checkbox"/> First Anniversary Follow-up Report	<input checked="" type="checkbox"/> Written Notification of a Change to Initial Notification	<input type="checkbox"/> Written Notification of a Change to Follow-up Report
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**Signed Statement:** I certify that the hazardous substances releases described herein are continuous and stable in quantity and rate under the definitions in 40 CFR 302.8(a) or 355.4(a)(2)(iii) and that all submitted information is accurate and current to the best of my knowledge.

8/13/99

Date

M. L. Nugent, Plant Manager

Name and Position

*M. L. Nugent*

Signature

**Part A. Facility or Vessel Information**

**Name of Facility or Vessel**

Alaska Nitrogen Products LLC  
Kenai Plant

**Person  
in Charge  
of Facility  
or Vessel**

Name of Person in Charge M. L. Nugent

Position Plant Manager

Telephone No. (907) 776-8121

Alternate Telephone No. ( ) None

**Facility  
Address or  
Vessel  
Port of  
Registration**

Street Mile 21 Spur Highway

County Kenai Peninsula Borough

City Kenai

State AK

Zip Code 99611

**Dun and Bradstreet Number for Facility**

092876390

**Facility/Vessel  
Location**

Latitude Deg N 60 Min 40 Sec 22

Longitude Deg W 151 Min 22 Sec 36

**Vessel LORAN Coordinates**

**Part B. Population Information**

**Population  
Density**

Choose the range that describes the population density within a one-mile radius of your facility or vessel (Indicate by placing an "X" in the appropriate blank below.)

<input checked="" type="checkbox"/> 0 - 50 persons	<input type="checkbox"/> 101 - 500 persons	<input type="checkbox"/> more than 1000 persons
<input type="checkbox"/> 51 - 100 persons	<input type="checkbox"/> 501 - 1000 persons	

**Sensitive  
Populations  
and  
Ecosystems  
Within one  
Mile Radius**

Sensitive Populations or Ecosystems  
(e.g., schools, hospitals, wetlands, wildlife preserves, etc.)

NONE

Distance and direction from facility



**SECTION III: HAZARDOUS  
SUBSTANCE  
INFORMATION**

**CR-ERNS Number**

44607

**Calculation of the SSI Trigger**

*For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.*

**Name of Hazardous Substance:** Ammonia

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Sources(s)

Upper Bound of the Normal Range of  
the Release (specify lbs., kg, or Ci)

PLEASE SEE ATTACHMENT 'A' FOR THIS INFORMATION.

**TOTAL – SSI trigger for this hazardous substance release\*:** \_\_\_\_\_

*\* This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*



Alaska Nitrogen Products LLC  
Revised 03/23/00

Source	All quantities in lbs./day			Comments on Max
	Avg.	Min.	Max.	
Plant 1: CO2 Vent (D-107)	20	8	48	
Plant 1: Dearator (F105)	22	22	22	
Plant 1: Fat Flasher Vent (F-113)	6	6	6	
Plant 1: Wet Reformed Gas Vent (F-130)	0	0	6,200	Startup
Plant 2: Prill Tower (P-406)	1,160	700	1,200	
Plant 2: Atmospheric Absorber (D-405)	0	0	1,000	Scrubber outage
Plant 2: Tank Vent Scrubber (D-406)	0	0	1,000	Scrubber outage
Plant 2: Crystallizer Hotwell (F-410)	5	1	10	
Plant 2: Urea Surge Tank (F-409)	0	0	8	
Plant 2: Vent Scrubber (D-407)	0	0	180	
Plant 2: NH3 Storage Tank Inerts Vent Scrubber (D-408)	21	0	100	
Plant 1 /2: Vent Flare/Stack (B-402)	24	6	4,700	Flare outage
Plant 1 /2: Emergency Flare (B-403)	120	0	700	
Plant 3: Oil/Water Separator Tank	5	0	1,500	Occurs intermittently
Plant 4: Dearator (F-205)	12	12	12	
Plant 4: Fat Flasher (H-269)	12	12	12	
Plant 4: Process Condensate surge drum vent (F-263)	120	120	120	
Plant 4: H2 Vent Stack (C-200)	0	0	1,000	Startup
Plant 4: Process Condensate Stripper Steam Knock-out Drum (H-260)	0	0	6,200	Plant 4 reformer outage
Plant 4: Ammonia Drain Tank (F-287)	0	0	165	Occurs only during pump maintenance
Plant 5: Granulator Scrubber (C-560A/B)	720	680	1,100	
Plant 5: Atmospheric Absorber (D512/D515)	0	0	200	
Plant 5: Vent Scrubber (D511)	500	0	1,000	
Plant 5: Exchanger (E-535)	60	0	240	
Plant 5: HP Scrubber (E-503)	20	20	20	
Plant 4/5: Vent Flare/Stack (B-502)	12	0	5,400	Flare outage
Plant 4/5: Emergency Flare (B-501)	2,600	0	7,200	
Fugitives: Valves, Pump Seals, Flanges	400	400	400	
Fugitives: Cooling Towers (2)	4	0	80	
Fugitives: Urea Warehouses	20	10	100	
TOTAL (pounds/day)	5,863	1,997	39,923	See footnote 1
TOTAL (tons/day)	3	1.0	20.0	See footnote 1

<sup>1</sup> The maximum is erroneously high because it assumes that simultaneously Plant 1 and 4 are in startup, scrubbers D405 and D406 are down for maintenance, and that both flares are down for maintenance. To obtain a more realistic upper bound of the normal range, assume that the special causes occur individually. The maximum quantity released from a special case is 6,200 lbs/day from either a plant startup or reformer outage. Therefore, the upper bound of the normal range, with only one special cause, is ...

9.5 tpd

Therefore, the normal reported range for  
routine and cont. releases of ammonia is:

Lower Range (tpd) 2.9

Upper Range (tpd) 9.5

